

ing trees with the side to the sun which had been so situated in their native sites, and under similar conditions of growth otherwise, so as to reinforce their resisting powers.

Prof. Cope informed the meeting that Prof. Orton's expedition to the Upper Amazon, organized at Vassar College, New York, had returned with copious collections, zoological, botanical, mineralogical and archæological, having reached 17° S. latitude.

The meeting was then adjourned.

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*Stated Meeting, March 6th, 1874.*

Present, 11 members.

Secretary, Prof. KENDALL, in the Chair.

Donations for the Library were reported from the Societies at Moscow, Upsal, Görlitz, Emden, Erfurt, Frankfort on Main, Chemnitz, Bonn, Geneva, Liverpool, Bath, and Madison, Wis.; from the Academies at Berlin, Vienna, Brussels; from the Observatories at St. Petersburg and Upsal; from the Geological Institute at Vienna; School of Mines, and Revue Politique at Paris; Society of Arts and Institutions in Union, Astronomical Society, and Meteorological Office in London, London Nature; Prof. Cooke, of Cambridge; Public Library of New Bedford; Silliman's Journal; Journal of Pharmacy; Penn Monthly, Deaf and Dumb Institute, Hospital for the Insane, House of Refuge in Philadelphia; U. S. War Department; and Mr. George Davidson.

Dr. Allen offered for publication in the Transactions a memoir entitled "Life Forms in Art," with many illustrations, and described the subject and its treatment.

On motion, the paper was referred to a Committee consisting of Mr. Whitman, Prof. P. E. Chase, and Dr. Brinton.

The Secretary exhibited a round bar of cast phosphorus-bronze, left for that purpose in his care by Mr. Hector Orr, who reported it broken under a tensile strain of 63,000 lbs. to the square inch. Its diameter at the place of fracture was slightly diminished.\*

Mr. Marsh read a communication, illustrated by diagrams, entitled, "The Luminosity of Meteors due to Latent Heat."

Pending nominations Nos. 745 to 747, and new nominations 748, 749, were read.

And the meeting was adjourned.

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*Stated Meeting, March 20th, 1874.*

Present, 12 members.

Vice-President, Mr. FRALEY, in the Chair.

A letter accepting membership was received from Dr. Hermann Kolbe, dated Leipsig, Feb. 15th, 1874.

Letters acknowledging the receipt of Proceedings were received from Dr. Renard and the Public Museum at Moscow, June 26, 1872, Jan. 1, 1871 (86); Dr. Stralkowski, St. Petersburg, July 1st, 1872 (86); Prof. A. Braun, Neuschönbron, Berlin, Oct. 12th, 1873 (88, 89); the R. S. Upsal, Nov., 1873 (86, 87, 88, 89); the N. H. S., Emden, Oct. 15, 1873 (88); Prof. Sandberger, Würtzburg, Nov. 12th, 1873 (88, 89); the München Observatory, Dr. W. V. Lamont, Dec. 6, 1873 (88, 88); R. Library, München, Jos. Aumer, Dec., 1873 (88, 89); R. Soc., Göttengen, Oct. 4th, 1873 (88, 89); N. H. Ass., Bremen, Oct. 31, 1873 (88, 89); Prof. Loomis, N. Haven, March 14th, 1874 (90, 91); N. Y. Hist. Soc., G. H.

\* Original diameter of bolt (circular) .75 inch; original area, .4417 in.; reduced area at breaking point, .3667 in.; strain on bolt at breaking, 19,550 lbs. = 63,100 lbs. per square inch. Alloy of tin 10, copper 90, less phosphorus, which is found to give useful properties within the limits of 2.5 and 0.1 per cent.